

**Kentucky Department of Education
Office of District Support Services
Division of Nutrition & Health Services**



School Food Services Level I Courses



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Revised September 2005

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Preface

I am very pleased to present you with this copy of the curriculum guide for use in the School Food Service Employee Certification program embodied in 702 KAR 6:045.

This guide has been developed with one purpose in mind: to help assure that we continue to have a well-trained, highly motivated work force available for the National School Lunch and School Breakfast programs.

I know that your use of this guide will result in even better nutrition programs in your schools.

A handwritten signature in black ink, reading "Paul McElwain". The signature is written in a cursive style with a large initial "P" and "M".

Director, Division of Nutrition & Health Services

Regulation

EDUCATION AND HUMANITIES CABINET

Department of Education

Office of Administration and Finance

702 KAR 6:045. Personnel: food service employee qualifications.

RELATES TO: KRS 156.160

STATUTORY AUTHORITY: KRS 156.070, 156.160

NECESSITY AND FUNCTION: KRS 156.160 requires the State Board for Elementary and Secondary Education to adopt regulations deemed necessary or advisable for the protection of the physical welfare and safety of public school children. This regulation prescribes necessary qualifications and training of beginning school food service employees.

Section 1. No person shall work, or be allowed to work, in a school kitchen unless he or she is physically and mentally able to do so safely and satisfactorily.

Section 2. Beginning with the 1989-90 school year, a condition of initial employment in a school kitchen shall be completion of the beginning school food service personnel training course prescribed by the State Board for elementary and Secondary Education and issuance of a Kentucky school food service employee certificate by the Commissioner, based upon evidence submitted to the Kentucky Department of Education, Division of School Food Service, from a certified instructor that all training requirements have been fulfilled under the provisions of this regulation. The prescribed training course for certification of beginning school food service personnel shall consist of the following instructional units and minimum instructional clock hours:

- (1) School Food Service Rules and Regulations – 1 hour;
- (2) Sanitation – 1 hour;
- (3) Safety and First Aid – 1 hour;
- (4) Food Preparation and Merchandising – 1 hour;
- (5) Equipment Use and Care – 1 hour;
- (6) Efficient Use of Resources – 1 hour; and
- (7) Nutrition Education – 1 hour.

Section 3. Those incumbent school food service personnel who voluntarily complete the beginning school food service personnel training course shall also be issued a Kentucky school food service certificate as prescribed in Section 2 of this regulation.

Section 4. Beginning with the 1990-91 school year, all certificate holders shall be required to renew their certificates annually by satisfactorily completing a minimum of four (4) hours of in-service training conducted by a certified instructor and relevant to the curriculum established under the standards set forth in Section 2 of this regulation.

Section 5. The local school food authority may issue a temporary school food service employee permit if it is necessary to initially employ an applicant on an emergency basis as a replacement or additional staff position; provided that the applicant meets the qualifications set forth in Section 1 of this regulation. This permit will be valid only for a period of forty (40) work days and shall be non-renewable. In order to continue working after this forty (40) day period has expired, the applicant shall fulfill the requirements of Section 2 of this regulation.

Section 6. Beginning substitute school food service personnel shall fulfill the following requirements:

- (1) Be employed with a temporary permit for forty (40) work days from the date of employment;
- (2) A substitute certificate shall be issued upon completion of four (4) hours of training as defined in Section 2 of this regulation in the following areas:
 - (a) Equipment Use and Care;
 - (b) Safety and First Aid;
 - (c) Sanitation; and
 - (d) Food Preparation and Merchandising
- (3) Renewal of this certificate shall be based upon satisfactorily completing one-half of the requirements specified in subsection (2) of this section.

Acknowledgements

Obviously, this Level I Course did not spring full-blown from the head of Zeus. Many thanks are deserved for the following individuals who put the curriculum sections together.

Glenna Acree, SFS Director, Green County – Safety

JoAnna Adams, SFS Director, Calloway County – School Food Service Regulations and Requirements

Sondra Jackson, SFS Director, Larue County – Efficient Use of Resources

Faye Lowe, Kentucky Department of Education – Nutrition Education

Manthus McAtee, SFS Director, Trigg County – Sanitation

Cheryl Sturgeon, SFS Operations Manager, Jefferson County – Food Preparation and Merchandising

Helen Underwood, SFS Director, Bullitt County – Equipment Identification and Uses.

Acknowledgement is also due Sylvia Elam, Assistant Director, Division of School Food Services, and Freda Francis, SFS Program Consultant, Division of School Food Services, Kentucky Department of Education for their work in editing and formatting the curriculum.

Many thanks to Kelley Hammond for typing and retyping and retyping...!

Finally, we have tried to give credit to those authors whose materials have been used so constructively throughout the curriculum.



Rules and Regulations

GOAL

To orientate all food service workers with a knowledge of current and applicable Child Nutrition Program rules and regulations.

OBJECTIVES

To help students:

1. Become aware of the background and goals of school food service.
2. Gain a working knowledge of the school lunch and breakfast meal patterns.
3. Understand the concept of Offer Versus Serve.
4. Realize the importance of source documentation in claims for reimbursement and production records.
5. Become aware of United States Department of Agriculture (USDA) donated foods and their importance.
6. Recognize that school meals are funded through several methods at varying rates.

CONCEPT		CONTENT
1.	<p>The goal of the Child Nutrition Programs is to safeguard the health and well being of the nation's children.</p> <p>RESOURCES/NOTES:</p> <p><u>The School Foodservice Handbook, (A Guide for Administrators),</u> Association of School Business Officials International, 1987.</p> <p>United States Department of Agriculture (USDA) Regulations, Parts 210 and 220.</p> <p><u>Menu Planning Guide for School Food Service,</u> USDA, Food and Nutrition Service, Program Aid Number 1260, December, 1983.</p>	<p>Much of the work you do as a school food service employee is governed by federal, state and local rules and regulations.</p> <p>The Child Nutrition Programs are government-subsidized programs, which are intended to provide the nutritional needs of children during the school day.</p> <p>The Food and Nutrition Service of the United States Department of Agriculture administers the program in cooperation with State Departments of Education. State Departments enter into agreements with local school districts for operation of the programs. A school may participate in any of several food service programs.</p>
2.	<p>The National School Lunch Act was passed by Congress in 1946 and has been amended several times.</p>	<p>After malnutrition was found to be a major problem for men enlisting in World War II, the National School Lunch Program was started with the dual purpose of using the nation's surplus agriculture products to provide improved nutrition</p>

		for the nation's children. Many subsequent acts and revisions have improved and expanded the program.
3.	<p>At the present time, there are several Child Nutrition Programs offered through schools by the United States Department of Agriculture.</p> <p>VISUALS:</p> <p>Overhead of Food Service Programs Offered by Schools.</p>	Beginning with the National School Lunch Program, many other programs have been started with the goal of improving the nutrition of children in the United States. Some of these are the School Breakfast Program, the Special Milk Program, the Child and Adult Care Food Program, the Summer Food Service Program for Children, and Commodities.
4.	<p>The school lunch meal pattern is designed to ensure that approximately 1/3 of a child's dietary requirements are met when averaged over a period of time.</p> <p>VISUALS:</p> <p>Overhead of most current School Lunch Pattern from the NHS website at https://kyeascn1.state.ky.us/nutrition.</p> <p>RESOURCES/NOTES:</p> <p><u>Focus on Efficient Management of School Food Services</u>, Division of School Food Services, Kentucky Department of Education, 1982.</p>	The nutritional goal for school lunches is to provide approximately 1/3 of the Recommended Daily Allowances (RDA) as specified by the National Academy of Sciences. It is not expected that each lunch each day will provide 1/3 of the RDA of all nutrients, but that when averaged over a period of time – in which a wide variety of foods are served – the goal will be met.
5.	The meal pattern determines how much food you prepare and serve.	The meal pattern requirements are grouped for age levels. They address the basic standard meal requirements and indicate minimum standards. Careful attention should be given to the School Meal Pattern chart. It is the basis of meeting the nutritional requirements of the children we serve.
6.	<p>The School Breakfast Meal Pattern is set by the United States Department of Agriculture.</p> <p>VISUALS:</p> <p>Overhead of the most current Breakfast Meal Pattern from the</p>	Since its inception in 1966, the School Breakfast Program has provided a good start toward meeting a child's daily nutritional needs.

	NHS website at https://kyeascn1.state.ky.us/nutrition	
7.	<p>Offer versus Serve was introduced as a method of reducing plate waste (food thrown away).</p> <p>RESOURCES/NOTES:</p> <p><u>Focus on Efficient Management of School Food Services</u>, Division of School Food Services, Kentucky Department of Education, 1983.</p>	<p>The regulation which allows students to choose less than all of the food items offered within the lunch pattern is commonly known as “Offer versus Serve”. All senior high schools operating under a Child Nutrition Program must allow students to refuse to take food at lunch that they do not intend to eat. School districts, in their agreement, must state whether they will allow students to refuse one or two of the five components that make up the meal pattern.</p>
8.	<p>At least three components must be taken for reimbursement to be received for the student’s meal.</p>	<p>Any of the five food items may be refused, but at least three must be taken to request reimbursement for the lunch. A reimbursable meal meets USDA standards for payment of federal money to the local school district.</p> <p>Offer versus Serve has nothing to do with choices offered within the components of a meal. Offering choices is a local option which usually increases participation.</p>
9.	<p>Offer versus Serve is an option at breakfast.</p>	<p>Offer versus Serve at breakfast is a local option which allows students to choose three of the four breakfast items offered. Students may refuse any one of the four breakfast items. Three must be taken for a reimbursable breakfast.</p>
10.	<p>Documentation of compliance with rules and regulations is required in many areas of school food services.</p> <p>RESOURCES/NOTES:</p> <p><u>Accuclaim Manual</u>, Kentucky Department of Education, Division of School Food Services, 1988.</p>	<p>Because of the importance of nutritional school meals to our nation’s children, we must be accountable to the public for the large sums of money and commodity foods that are entrusted to us. Misuse of these valuable resources can jeopardize the entire Child Nutrition Program in the public’s eye.</p>
11.	<p>Each food service employee must make certain that the Child Nutrition Programs are never jeopardized for lack of accountability.</p> <p>VISUALS:</p> <p>Overhead of the most recent Lunch and Breakfast Menu and Production Record from the NHS website at</p>	<p>You will be asked to supply valuable information as to the quantities of food used in preparation and serving, the number of meals served and the intended use of any left over foods. The records used to record this information are called production records. These records are kept daily to ensure that the meal pattern was met, that the quantity of food needed to meet the children’s nutritional needs is prepared and that left over food is accounted for.</p>

	https://kyeascn1.state.ky.us/nutrition RESOURCES/NOTES: <u>Focus on Efficient Management of School Food Services</u> , Kentucky Department of Education, Division of School Food Services, 1982.	<p>You will be asked to furnish information through these records that will ensure that each meal for which reimbursement is requested meets federal standards.</p>
12.	<p>Surplus donated commodities are an important resource for Child Nutrition Programs.</p> <p>RESOURCES/NOTES:</p> <p><u>The School Foodservice Handbook: A Guide for Administrators</u>, Association of School Business Officials International, 1987.</p>	<p>Many factors such as weather conditions, foreign exports, and national supply and demand influence the amount of food grown in the United States. The USDA stabilizes the farmers' market by purchasing surplus foods with tax dollars. These foods are donated to programs which alleviate hunger in the United States such as school lunches. These donated foods help to lower the price of meals to the parent.</p> <p>Care must be given to keeping these donated foods in good condition, using them to the maximum, and accounting for their use.</p>
13.	<p>Local school districts are reimbursed by the federal government through the State Department of Education for all meals served to students.</p>	<p>To carry out the Congressional intent that nutritious meals be available to school children regardless of the family's ability to pay, the USDA has established regulations, which must be observed in all schools that participate in any of the Child Nutrition Programs.</p> <p>Family size and income guidelines are used to determine eligibility for free and reduced priced meals. Parents must make application each year for approval of status. USDA sets the reimbursement rates based on the category of meals being served (free, reduced or paid by parents); all meals are federally subsidized.</p>
14.	<p>Students must not be overtly identified or discriminated against in any way.</p>	<p>All students, without regard to race, creed, color or national origin, must be treated the same in receiving meal service. They must all receive the same meal or choices. They cannot be required to stand in any separate line or sit at separate tables. They cannot be identified as receiving free, reduced or paid meals. Children who are eligible for free or reduced priced lunches are also eligible for free or reduced price breakfasts.</p>
15.	<p>No reimbursement is received for any adult meal.</p>	<p>Charges for adult meals must cover the cost of the meal determined by the highest charge to a student</p>

		plus the federal reimbursement for all meals plus the value of donated commodities per plate. There is no federal subsidy on any adult meal.
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Child Nutrition Programs Offered Through Schools by USDA

National School Lunch Program

School Breakfast Program

Special Milk Program

Child and Adult Care Food Program

Summer Food Service Program for Children



Sanitation

GOAL

To give School food service employees an understanding of the reason for correct practices to prevent any outbreak of food-borne illness because of meals served in schools.

OBJECTIVES

1. To identify all critical areas of food service sanitation.
2. To identify steps to take when food-borne illness is suspected.
3. To identify transmission of bacteria by personal hygiene.
4. To identify proper sanitary storage procedures.

CONCEPT		CONTENT
1.	<p>There are six areas that are critical to food service sanitation.</p> <p>VISUALS:</p> <p>VCR-USDA “Food is No Mystery”.</p> <p>Sanitation Handouts</p> <p>RESOURCES/NOTES:</p> <p>Current State Health Department Rules and Regulations Handbook</p>	<p>1. Each employee of a school food service program has the responsibility of protecting his/her customers from illness due to poor sanitation. These are six areas that are critical to food service sanitation:</p> <ol style="list-style-type: none">a. Food-borne illness;b. Personal hygiene;c. Food storage;d. Pest control;e. Cooking;f. Facility and equipment sanitation.
2.	<p>Information needed when food-borne illnesses are suspected</p>	<p>2. A food-borne illness is an illness caused by foods that contain bacteria harmful to the human body. The illness can be caused by the bacteria or the poisons from the bacteria. Some types of bacteria are naturally found in certain foods and are beneficial (in making cheese, wine, etc.), but other bacteria are harmful and cause food-borne illnesses.</p> <p>Bacteria multiply very rapidly. For example:</p> <ul style="list-style-type: none">• One bacterium = 2 bacteria in 12 minutes.• One bacterium = 4 bacteria in 40 minutes.• One bacterium = 500 bacteria in 3 hours. <p>Information you need when food-borne illnesses are suspected:</p> <ol style="list-style-type: none">a. Name, address and phone number of person;

		<ul style="list-style-type: none"> b. When the person last ate (time and date); c. Everything the person ate; d. What food tasted bad when eaten; e. What time person got sick; f. All symptoms. <p>Information about the foods involved:</p> <ul style="list-style-type: none"> a. Keep all leftovers of the suspected foods and mark “DO NOT USE”; b. Call the local or state health department; Notify the appropriate school official.
3.	Food-borne illness can be transmitted by personal hygiene. Personal appearance is also important.	<p>3. Since organisms causing most of the food-borne illnesses can be transmitted by people. Personal hygiene and work habits are very important. Some specific ways to prevent transmission of bacteria and have a professional, clean appearance:</p> <ul style="list-style-type: none"> a. Bacteria can spread to food from cuts and sores. People with cuts or sores must not handle food. b. Avoid handling food if you have a cold, nausea, diarrhea, fever or a sore throat. c. Always wash your hands frequently, especially after scratching your head, wiping mouth or nose with fingers, smoking or fixing your hair. d. Bacteria can be spread by coughing or sneezing. Disease organisms of respiratory diseases may be in the spray thrown out by the cough or sneeze. e. Take care in your personnel appearance. Wear clean clothes. Uniforms are preferred because of their neat appearance and ease of cleaning. Uniforms can be of any color, pant or dress style. f. Use a hair net. g. Bathe or shower daily. h. Wear moderate jewelry – like a watch and wedding ring – no dangling necklaces or earrings. i. Use a deodorant. j. Do not “nibble” in the food preparation or

		<p>serving area and be sure to wash your hands after eating your lunch.</p> <p>k. Smoke only in designated areas at designated times and be sure to wash your hands afterwards.</p>
4.	Hand washing is very important in the food service industry.	<p>4. Always wash your hands:</p> <p>Upon reporting to work; When soiled; After use of a handkerchief; After visiting the restroom; After eating; After smoking; After handling produce and garbage cans; After mopping.</p>
5.	Food storage is a vital part of ensuring that your facility produces acceptable meals.	<p>5. Protection of food from contamination during storage is the beginning of good sanitation.</p> <p>Dry Storage:</p> <p>a. Should provide orderly storage for staple foods, supplies and canned goods.</p> <p>b. Must be well ventilated to control temperature and humidity and retard growth of various types of bacteria and mold. Store food on shelves or pallets (skids) away from walls and off the floor.</p> <p>c. Should keep foods at room temperature of 70 degrees F or lower. Temperatures higher than 70 degrees F cause:</p> <ol style="list-style-type: none"> 1) Bacteria to multiply rapidly. 2) Foods to rot and mold. 3) Weevils and other insects to become more active. 4) Some vitamins to be destroyed. 5) Some foods to lose their color. <p>d. Should be inspected regularly. Remove and destroy all infested food and clean up spillage immediately.</p> <p>e. Should follow an established schedule and all employees should be familiar with it.</p> <p>f. Should be arranged so that food placed in storage first will be used before newer incoming supplies – “first-in, first-out”.</p> <p>g. Should not contain cleaning and sanitizing agents, chemical sprays or poisons.</p>

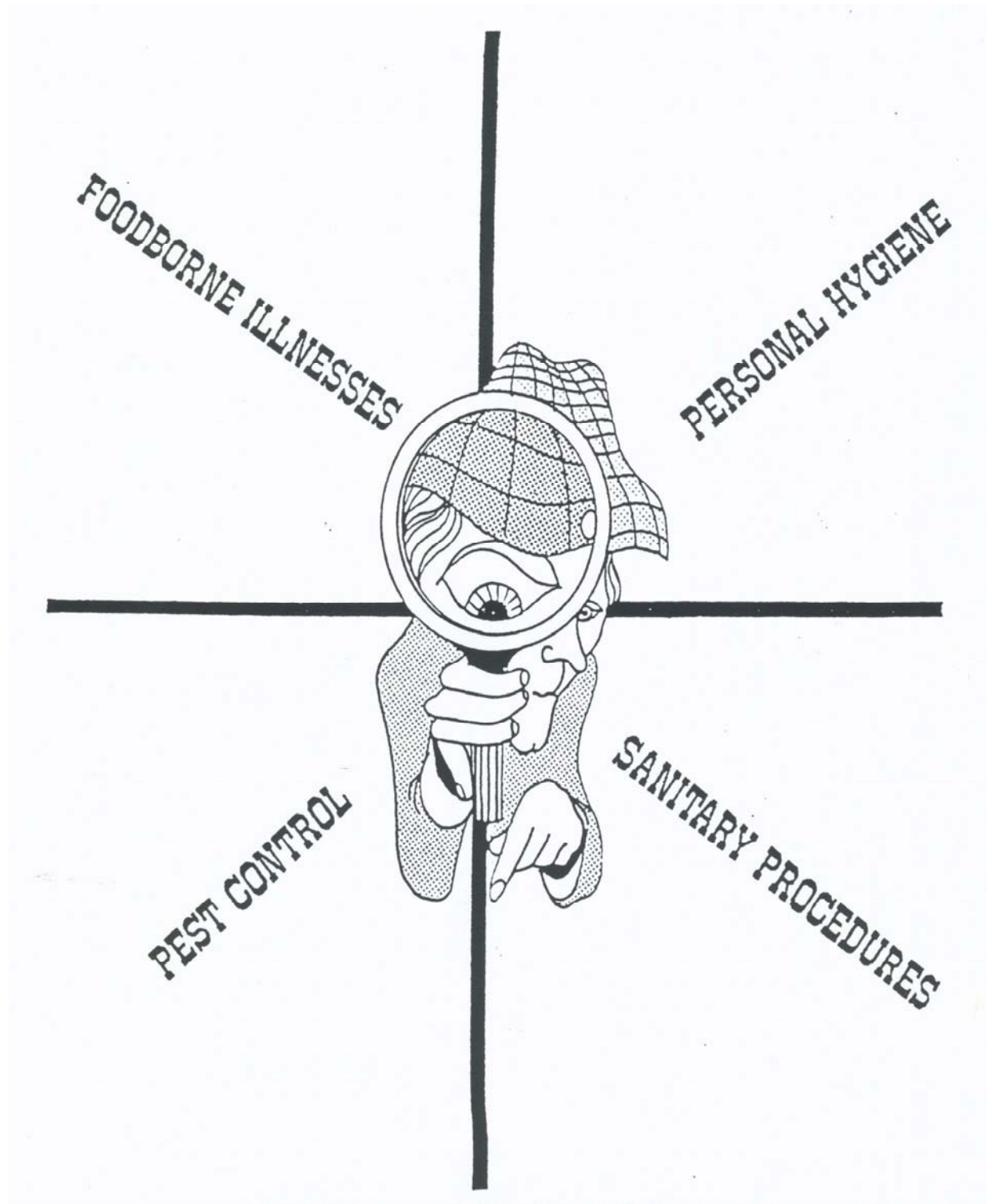
		<p>Refrigerator Rules:</p> <p>Certain foods must be kept cold to prevent the growth of bacteria and molds. Clean foods held at the proper temperature will be protected against spoilage and deterioration. However, normal refrigeration will not keep foods fresh indefinitely. The sooner they are used the better.</p> <ol style="list-style-type: none"> Place food in refrigerator to allow cold air to circulate around it. Do not overcrowd. Wash highly soiled fruits and vegetables before placing in the refrigerator. Cover all foods to keep them from drying out and from absorbing flavors from one another. Refrigerate ground meat, salads and large quantities of cooked food in shallow pans, not over 3-4 inches deep, to promote quick cooling. Discard unneeded food to prevent crowding and increase air circulation. Maintain at a temperature of 45 degrees F (7 degrees C) or lower. Equip all refrigeration units with thermometers. Clean all refrigeration thoroughly at least once a week. Never cover shelves with foil, paper or other materials that will interfere with adequate circulation of air. <p>Freezer Rules:</p> <ol style="list-style-type: none"> Maintain at a temperature of 0 degrees F (-18 degrees C) or lower. Equip freezer with a thermometer. Store frozen foods in their original wrapping or containers. If wrappings or containers have been damaged, the individual packages will need additional overwrap in moisture/vapor-proof material before storing in the freezer. Defrost and clean freezer regularly and keep in good repair. Take care that the frozen food does not thaw. Place it where it will be kept cold or wrap it in several thicknesses of paper.
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		e. Thaw all frozen foods in the refrigerator – NEVER at room temperature.
6.	Rats, mice, flies, roaches and insects are not only pests, but are dangerous disease carriers. While these pests are sometimes found in a clean food service establishment, their continued presence is a sign of poor housekeeping and poor sanitation.	<p>6. Roaches</p> <p>Cockroaches are capable of carrying disease organisms both in their bodies and on the outside of their bodies. The sickening, offensive odor of cockroaches results from an oily liquid given off by the scent glands. This odor, which ruins food, is noticeable when there are large numbers of cockroaches.</p> <p>To control roaches and other insects:</p> <ol style="list-style-type: none"> Inspect food supplies before storing or using. Fill openings or cracks in walls and floors with putty, plastic wood, or a similar product. Keep your stock of food as fresh as possible and rotate stock. Store foods in containers with tight fitting lids. Do not store food or containers directly on the floor. Remove and destroy infected food. Clean up all spillage immediately. Clean shelves before adding new stock – DO NOT use shelf paper. Clean empty bins and containers before refilling. <p>Flies and Other Pests</p> <p>Flies can transmit more than 30 diseases. It has been reported that a single fly can carry more than 30 million bacteria. Even more repulsive is the fact that the fly cannot chew, so he vomits on solid food to soften it before he can eat.</p> <p>To control flies:</p> <ol style="list-style-type: none"> Screen all windows, doors and outer openings. Use self-closing doors that open outward. Keep food covered. Place all garbage in non-absorbent easily washable garbage cans with tight-fitting lids. Clean up any spillage of garbage immediately. Have garbage and other wastes removed daily.

		g. Use only those pesticides allowed by the Health Department.
7.	Thorough cooking is important to kill bacteria that may be present in food or to arrest their growth.	<p>7. It is vital that employees are aware of appropriate cooking methods:</p> <ul style="list-style-type: none"> a. Cook potentially hazardous foods to an internal temperature of 165 degrees F (74 degrees C). b. Cook ground or chopped foods immediately. c. Stir foods that are cooked in deep pots frequently to assure thorough cooking. d. Cook food as near to serving time as possible. e. Maintain hot foods held for serving or being transported at or above 140 degrees F (60 degrees C); use a thermometer to check temperature.
8.	It is important that the entire facility be cleaned properly every day.	<p>8. Floors</p> <ul style="list-style-type: none"> a. Keep free from dirt, litter and moisture. b. Clean properly every day: under fixtures, in corners, and in hard-to-reach places. c. Keep in good repair <p>Walls and Ceilings (including windows, doors, screens, and light fixtures)</p> <ul style="list-style-type: none"> a. Clean frequently. A portion of each day should be scheduled for these cleaning jobs. b. Keep in good repair. Replace light bulbs promptly. <p>Ventilation</p> <ul style="list-style-type: none"> a. Use exhaust fans to remove odors, smoke and insects. b. Use hoods over cooking areas and dishwashing equipment. c. Keep exhaust fans and hoods clean and properly operating. d. Wash filters as needed in dish machine or three-compartment sink. <p>Dishwashing</p> <ul style="list-style-type: none"> a. Mechanical, Single Tank – Wash 150 degrees F (66 degrees C). Rinse 180 degrees F (83

		<p>degrees C).</p> <p>b. Manual – In a three-compartment sink, the first sink contains a detergent solution for washing; the second sink contains clear water for rinsing; and the third sink contains clear water plus a sanitizing agent.</p> <p>Utensils and Equipment</p> <p>a. Sanitize food contact surfaces. Use ½ ounce of 5% bleach per gallon.</p> <p>b. Keep in good repair, free of breaks, corrosion, open seams, cracks and chipped places.</p> <p>c. Clean tables, meat blocks, stoves, sinks, peelers, choppers, mixers, and cooking and eating utensils after each use.</p> <p>d. Defrost and clean refrigerators frequently.</p> <p>e. Store utensils in a clean place inverted or covered and protected from splashing, dust, etc.</p> <p>Storerooms</p> <p>a. Keep clean and orderly.</p> <p>b. Check frequently for damage or spoilage, broken or torn packages, and bulging or leaking cans. If found, remove immediately and clean area thoroughly.</p> <p>Restrooms</p> <p>a. Scrub daily and keep door closed at all times.</p> <p>b. Paper towels and soap should be available at lavatories at all times.</p>
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SANITATION



BE A DETECTIVE IN SANITATION

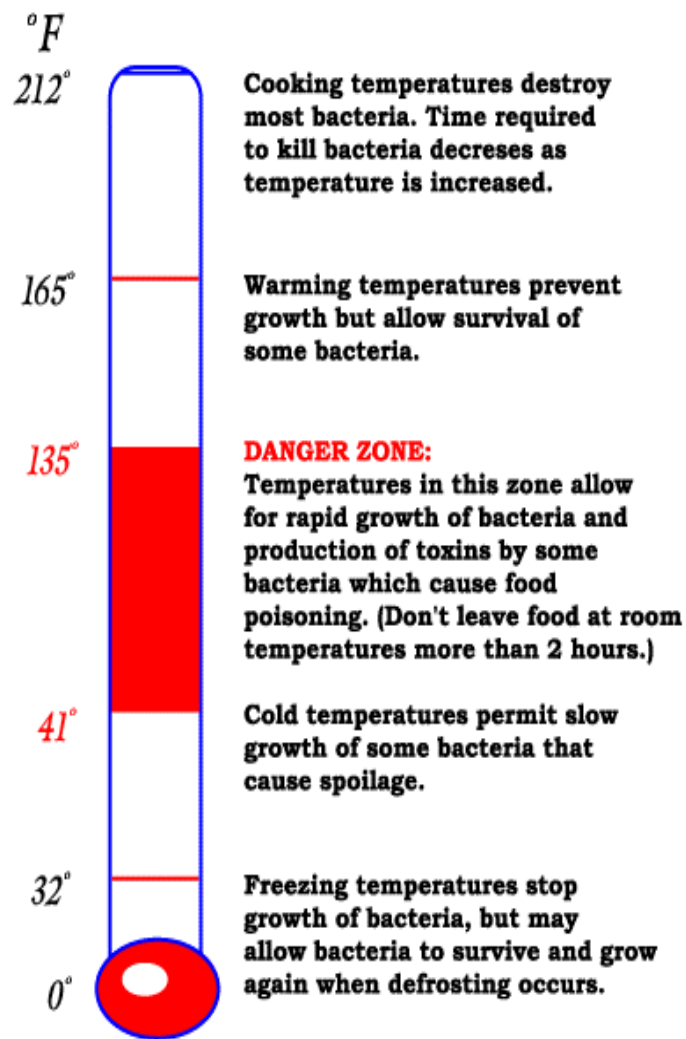
THE TEN COMMANDMENTS OF SANITATION

1. When refrigerating potentially hazardous foods, make certain an internal product temperature of 45 degrees F 97.2 degrees C) or less is maintained.
2. Use extreme care in storing and handling food prepared in advance of service.
3. Cook or heat-process food to recommended temperatures.
4. Relieve infected employees of food-handling duties and require strict personal hygiene of all employees.
5. Make certain that hot-holding devices maintain food at temperatures of 140 degrees F (60 degrees C) or higher.
6. Give special attention to inspection and cleaning of raw ingredients that will be used in foods that require little or no cooking.
7. Heat leftovers quickly to an internal temperature of 165 degrees F (73.9 degrees C).
8. Avoid carrying contamination from raw to cooked and ready-to-serve foods via hands, equipment and utensils.
9. Clean and sanitize food/contact surfaces of equipment after use.
10. Obtain food from approved sources.

THE EIGHT CAPITAL OFFENSES OF SANITATION

1. Failure to properly refrigerate food.
2. Failure to thoroughly heat of cook food.
3. Infected employees who practice poor hygiene.
4. Preparing foods a day or more before they are served.
5. Incorporated raw, contaminated ingredients into foods that receive no further cooking.
6. Allowing foods to remain at bacteria-incubating temperatures.
7. Failure to reheat cooked foods to temperatures that kill vegetative bacteria.
8. Cross-contamination of raw foods with cooked items by workers who mishandle foods or through improperly cleaned equipment.

TEMPERATURES FOR CONTROL OF BACTERIA





Safety and First Aid

GOAL

To make employees aware of safe work habits and to give them minimum basic information on how to avoid common hazards and accidents.

OBJECTIVES

1. To identify major types of injuries which occur in food service.
2. To identify major causes of accidents in food service.
3. To identify types of fires and fire extinguishers in the workplace.
4. To identify chemicals used in food service that could be potentially dangerous.

CONCEPT		CONTENT
1.	<p>There are six major types of injuries common in food service.</p> <p>VISUALS:</p> <p>Overhead/Handout of six major types of injuries.</p> <p>RESOURCES/NOTES:</p> <p>The Kentucky School Board Insurance Trust. For additional information, call (502) 695-4630.</p>	<p>1. While there are many types of injuries which can occur in the workplace, the ones most common in food service are:</p> <ol style="list-style-type: none">a. Sprains;b. Strains;c. Cuts and punctures;d. Blows or bruises;e. Burns – heat or chemical;f. Broken bones. <p>In Kentucky school food service in 1987 (excluding Jefferson County), there were reported:</p> <ol style="list-style-type: none">a. 164 Cuts and puncturesb. 146 Blows or bruisesc. 19 Fractures <p>These were the accidents that were reported. There are many, many others that never get reported.</p>
2.	<p>There are seven types of accidents which generally cause injuries in food service.</p> <p>VISUALS:</p> <p>Overhead/Handout of seven types of accidents, which generally cause injuries.</p> <p>RESOURCES/NOTES:</p>	<p>2. The most common accidents are:</p> <ol style="list-style-type: none">a. Over-exertion;b. Falls;c. Cuts;d. Fires;e. Mistakes in using equipment;f. Mistakes with chemicals;g. Burns. <p>Over-exertion and falls can cause strains,</p>

	<p>Kentucky information about the causes and types of accidents can be found by calling (502) 695-4630.</p>	<p>sprains, bruises, broken bones – even cuts. Backs are the part of the body most affected by strains. Fires can cause almost all types of injuries, as can mistakes using equipment. Chemicals can cause various injuries depending upon the chemical. Burns are almost always caused by carelessness.</p>
3.	<p>Accidents can be prevented.</p> <p>VISUALS:</p> <p>Overheads on safe lifting and burn prevention.</p>	<p>3. Learn the right way to deal with day-to-day tasks that lend themselves to accidents:</p> <p>Over-exertion</p> <ol style="list-style-type: none"> Be careful not to over-exert yourself at work. Lift with the legs and not the back. Use carts to transport items too heavy or bulky to carry. Ask another employee to help move heavy objects. <p>Falls</p> <ol style="list-style-type: none"> Clean up spills and dropped food immediately. Always walk – DO NOT run. Never leave items in walkways for people to trip over. Always use a ladder or proper step stool for climbing. Never climb on boxes or other unstable items. <p>Cuts</p> <ol style="list-style-type: none"> Always use the proper knife for the job. Chop on a cutting board not in the hand, etc. Carry knives by the handle with the blade away from the body and pointed down. Never put knives in the bottom of a sink. Peel away from the body. Treat can openers and opened cans carefully. <p>Burns</p> <p>Burns can be caused by fires, chemicals, electricity or contact with hot items. The most common cause of burns is contact with hot</p>

		<p>cooking containers, ovens or hot food or liquid. Burns can be kept down if the following practices are kept in mind:</p> <ol style="list-style-type: none"> Consider every pot or pan hot. Handle pots, pans, and lids carefully. Open oven/steamer doors slowly. Get help to handle heavy or large hot containers. Use hot pads or gloves – not aprons, towels, etc., to handle hot items. Keep handles of pots out of aisles.
4.	<p>Employees should be instructed regarding poor personal habits and their causes.</p>	<p>4. Accidents can be prevented if you watch to be certain that you, as an employee, guard against the following bad habits which can cause accidents to happen:</p> <ol style="list-style-type: none"> Carelessness; Daydreaming; Rushing; Over-doing; Divided attention; Lack of consideration; Horsing around; Drinking on the job; Cutting corners; Overconfidence.
5.	<p>Fires can cause injuries to anyone in the building.</p> <p>VISUALS:</p> <p>Overhead with types of fires listed. Overhead with types of extinguishers explained. Handout on what to do if a fire occurs.</p> <p>RESOURCES/NOTES:</p> <p>A person from the fire department could be called and asked to do a demonstration on putting out fires.</p>	<p>5. Types of Fires:</p> <ol style="list-style-type: none"> CLASS A – Fires in paper, wood, rags, cloth – ordinary combustible material; CLASS B – Flammable liquids such as grease, fuel, oil, gasoline, cleaning solvent, and other flammable liquids; CLASS C – Electrical equipment. <p>Fire Extinguishers: Each type of fire requires a different type of extinguishing material and extinguishers are marked by an A, B, or C to show which type of fire they put out. Most food service operations use a multi-purpose dry chemical extinguisher which will put out any of the three fires mentioned above and is marked with a, B, and C.</p>

		<p>Each employee should know the location of the fire extinguishers.</p> <p>Fires: fires can be prevented by taking the following precautions:</p> <ol style="list-style-type: none"> Keep equipment free of grease and clean. Store chemicals properly. Make sure that all electrical cords are in proper condition. Keep storerooms free of unnecessary paper, boxes, or rags. Keep hot fats and grease from splattering. Light matches before turning on gas when lighting equipment. Be careful if or when smoking cigarettes and do so only in areas approved for smoking.
6.	<p>There are chemicals in the kitchen, which are potentially dangerous.</p> <p>RESOURCES/NOTES:</p> <p>The Kentucky School Board Insurance Trust puts out a booklet, <u>Hazard Communication</u>, which could be helpful.</p>	<p>6. The food service employee comes in contact with many chemicals daily, which, if used incorrectly or improperly, could cause damage. A short list of some of these include:</p> <ol style="list-style-type: none"> Bleach; Dishwasher detergent; Oven cleaner; De-limer; De-greaser; Drying agents; Cleanser; Liquid detergent; Glass cleaner; Laundry detergent; Insecticides; Rodent bait; Disinfectant; Lemon oil polish; WD-40. <p>Each kitchen shall have chemical data sheets for potentially dangerous substances, which give information on how it should be used, and what steps should be taken if an accident occurs while using the substance.</p> <p>Before using any chemical, you are to be familiar with the data sheet.</p>

MOST COMMON INJURIES IN FOOD SERVICES

Sprains

Strains

Cuts/Punctures

Blows/Bruises

Burns – Heat or Chemical

Broken Bones

MOST COMMON ACCIDENTS IN FOOD SERVICE

Overexertion

Falls

Cuts

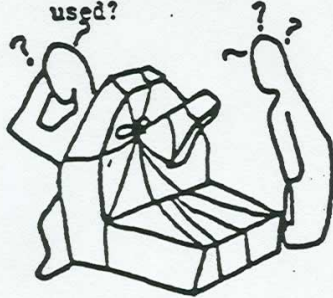
Fires

Mistakes Using Equipment

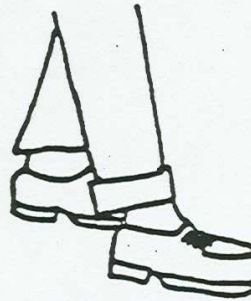
Mistakes Using Chemicals

Burns

1. SIZE UP THE JOB....is it too heavy? Is it too bulky? Can mechanical means of lifting be used?



2. POSITION FEET CAREFULLY...feet spread about 20"...one foot at side of object...other foot in back of object.



3. BEND BODY CORRECTLY...bend knees...feet flat on floor...back straight but not necessarily vertical...tuck chin in.



4. TILT OBJECT...grasp freed bottom corner with one hand...grip firmly with palm of hands as well as fingers.



5. LIFT WITH LEG MUSCLES...keep object close to body...arms in...chin in...make leg muscles do the work.

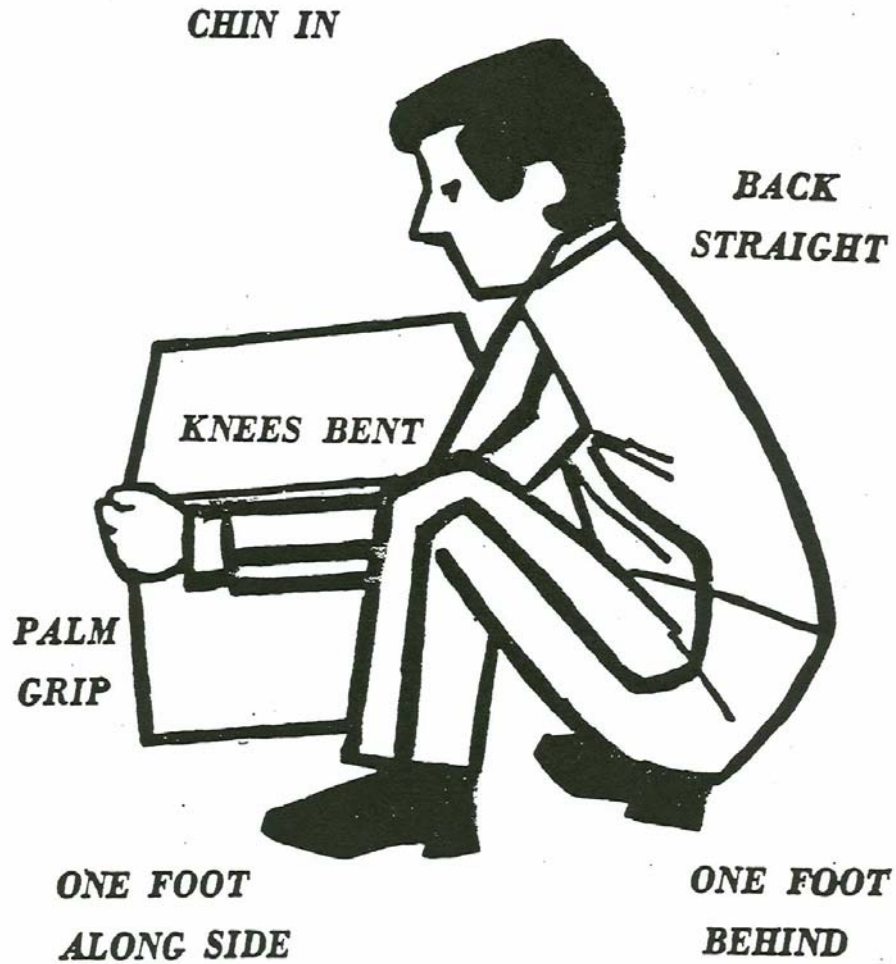


6. LOWER LOAD BY REPEATING STEPS 2, 3, 4, 5...avoid twisting throughout the lift, the carry, and the set-down...remember, repetitive lifting and twisting, no matter how light the load, will cause you trouble sooner or later.



It's Up To You
THINK BEFORE YOU LIFT

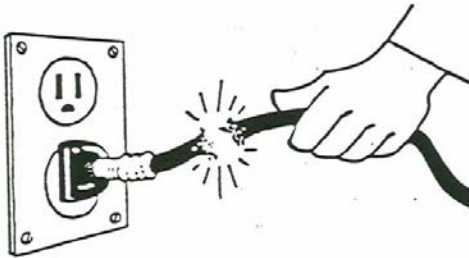
SAFE LIFTING



KENTUCKY SCHOOL BOARDS INSURANCE TRUST

BURNS CAN BE PREVENTED

- 1) CONSIDER EVERY POT
OR PAN HOT !
- 2) HANDLE POTS, PANS,
AND LIDS CAREFULLY !

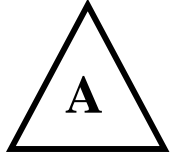

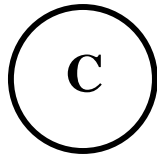


- 3) USE HOT PADS OR GLOVES,
NOT APRONS OR TOWELS,
TO HANDLE HOT ITEMS

- 4) DO NOT PULL CORDS OUT
OF THE SOCKET - PULL
THE PLUG !
- 5) OPEN OVENS, STEAMERS,
AND PAN LIDS. SLOWLY
TO PREVENT STEAM
BURNS
- 6) KEEP HANDLES OF POTS
TURNED SO THAT THEY ARE OUT OF WALKWAYS AND TRAFFIC AREAS



KNOW ABOUT FIRE EXTINGUISHERS

CLASS OF FIRE	TYPE OF FIRE	TYPE OF EXTINGUISHER
Class A	wood, paper, rags, ordinary Combustibles	
Class B	grease, gasoline, oil, paint, flammable liquids	
Class C	electrical and electrical equipment	

Most school kitchens should be equipped with a fire extinguisher that is marked to handle all three types of fires.



Food Preparation and Merchandising

GOAL

To promote an understanding of volume food production and merchandising techniques.

OBJECTIVES

1. To make employees aware of basic food preparation terms to enable them to read recipes and follow directions.
2. To develop skills in using standardized recipes.
3. To help employees become knowledgeable of merchandising opportunities.

CONCEPT		CONTENT
1.	<p>Employees need to be aware of basic food preparation terms to enable them to interpret recipes.</p> <p>VISUALS:</p> <p>Review terms by reading words and definitions and identifying examples of specific food items that involve the use of that term.</p> <p>Handout of Definitions of Terms.</p>	<p>1. The process of quantity food preparation requires an employee to be able to read and interpret standardized recipes, food buying guides, charts, equipment, use instructions and directives. There are terms which are unique to volume food production that must be understood if safe, consistent preparation of quality food is to be achieved.</p>
2.	<p>Be informed of purpose, content, and method of using standardized recipes.</p> <p>VISUALS:</p> <p>Overhead of a standardized recipe (instructor's choice).</p> <p>RESOURCES/NOTES:</p> <p>Verbally work through simple conversions of standardized recipes including doubling and halving batch while indicating all changes that will occur.</p> <p>USDA Portfolio Standardized Recipes, Menus (instructor choice for recipe).</p> <p><u>Menu Planning Guide for School</u></p>	<p>2. A standardized recipe specifically describes amount of ingredients and method of preparation needed to consistently produce a high quality product that will meet USDA requirements.</p> <p>A standardized recipe specifically describes the amount of ingredients and method of preparation needed to consistently produce a high quality product that will meet USDA requirements.</p> <p>The information will include: the name of the recipe, the classification of nutritional contributions, ingredients by form and order of use, weights and measures, directions, servings yielded, variations, and purchasing units.</p> <p>Use of standardized recipes can help increase the acceptability of food, control portion size and cost by reducing food and labor costs.</p>

	<p>Food Service, USDA, FNS, Program Aid No. 1260, January, 1983.</p> <p><u>Food Buying Guide for Child Nutrition Programs</u>, USDA, FNS, Program Aid No. 1331, January, 1984.</p>	
3.	<p>Review range and scope of merchandising applications and how individuals can apply.</p> <p>VISUALS:</p> <p>Overhead of Merchandising Hints.</p> <p>RESOURCES/NOTES:</p> <p>Discuss Merchandising Hints and add suggestions to the list by asking for examples of successful efforts made.</p>	<p>3. Merchandising is selling, and the product to be sold is the school meal. Each school food service employee holds the key to public acceptance of the school nutrition program as an essential part of the educational program.</p> <p>All the jazzy menus, garnishes and decorations cannot make up for poor quality food, unclean areas, or poor effort and attitude of staff.</p> <p>Put a stop, look, and listen plan into effect. Stop in the midst of normal routine to look at the line from the students' level and to look at the faces of those serving for a total view of what the guest is seeing. Listen to comments, both verbal and written, in surveys and act on suggestions.</p>

DEFINITIONS OF TERMS

The following are definitions of terms commonly used in standardized recipes and other food service program aids.

A LA KING	Served in a rich cream sauce (chicken a la king).
Au Gratin	Foods creamed or moistened with milk or stock. The food is placed in a casserole or baking dish, covered with crumbs, butter or cheese, and baked or broiled until the top is brown (potatoes au gratin).
Au Jus	Meat served with its natural unthickened juices.
Bake	To cook by dry heat; usually done in an oven.
Barbecue	Food is usually basted with a highly seasoned sauce (barbecued spareribs or chicken).
Baste	To moisten meat or other food while cooking to add flavor and to prevent drying of the surface. The liquid is usually fat, drippings, water, or water and fat.
Beat	To make a mixture smooth or introduce air by using a brisk, regular motion that lifts the ingredients over and over.
Blanch	To precook or pre-treat in boiling water or steam or possibly in fat. Used (1) to inactivate enzymes and shrink foods for canning; (2) to aid in removing skins from fruits and nuts; and (3) to precook in deep fat without browning as a first process in cookery for French fried potatoes, etc.
Bind	To thicken slightly with flour mixed with melted fat. This term is used in older recipes.
Blend	To mix thoroughly two or more ingredients. Often done in electric mixer at low speed.
Boil	To cook in a liquid, Water or mostly water, in which the bubbles are breaking on the surface and steam is being given off. At sea level, the boiling temperature of water is 100 degrees C or 212 degrees F. The boiling point will be approximately 1 degree C less for every 1,000 feet increase in altitude.
Braise	To brown meat or vegetables in a small amount of fat, add a small amount of liquid, cover tightly and cook slowly. The liquid may be water, milk, cream, or meat stock.

Bread	To coat with breadcrumbs or cracker meal, etc., or to coat with crumbs, then with slightly diluted egg and again with crumbs. The latter process is sometimes termed “egging and crumbing”.
Broil	To cook by direct or radiant heat.
Caramelize	To heat sugar or food containing sugar until a brown color and characteristic flavor develop.
Chop	To cut into small pieces. If a French knife is used and you are right-handed, press two or three fingers from the left-hand on the back of the blade near the point. With the handle in the right hand, cut up and down in a rocking motion, pivoting the point of the knife.
Condiment	A seasoning such as salt, pepper, spices, and herbs. Relishes are also spoken of as condiments.
Cream	To make soft, smooth and creamy by beating with a spoon or electric beater; often applies to shortening and sugar as used in cakes.
Crimp	Used in pastry making; applies to formation of decorative edge on the crust. Dice To cut into $\frac{1}{4}$ inch cubes. Vegetables are cut into lengthwise or crosswise slices, then into slices $\frac{1}{4}$ inch wide and finally sliced crosswise into $\frac{1}{4}$ inch pieces (diced potatoes).
Disjoint	To separate joints of poultry or break into pieces.
Flour	To sprinkle, dust or coat with flour or other fine substance.
Fold	To combine by using motions, cutting vertically through the mixture and turning over and over by sliding the implement across the bottom of the mixing bowl with each turn. Proper folding in prevents loss of air.
Fry	To cook in hot fat. (1) To cook in a small amount of fat is called pan-fry; (2) to cook in a deep layer of fat is called deep-fat frying.
Garnish	Edible food used to decorate another food.
Glaze	To coat with sugar syrup or melted jelly, either during or after cooking. Other glazes (for ham) may be made from brown sugar and mustard or honey and orange juice.
Graduated	Measuring utensils marked to indicate varying amounts.
Grease	Cover with shortening or butter before filling with food.

Internal	The temperature in the middle or thickest part of food.
Julienne	Anything cut into long match-like strips.
Knead	To manipulate with a pressing motion accompanied by folding and stretching; to knead with a mechanical mixer, use a dough hook.
Lard	To insert strips of fat into or on top of uncooked lean meat, poultry, or fish to give flavor and prevent dryness.
Level	Applied to measurement of dry or solid ingredients. Ingredients should come to the top of the measuring utensil and then be leveled off with a straight-edged spatula or knife.
Marinate	To treat with a marinade (an oil-acid mixture) that is usually like a salad dressing. The process imparts flavor and when used with meats, some tenderizing action takes place.
Melt	To liquefy by the application of heat.
Mince	To cut or chop food into very small pieces. The pieces are not quite as fine and regular as those produced by grinding.
Mix	To combine ingredients in any way that effects even distribution.
Mold	To form into desired pattern either with hands or with molds.
Pan-Broil	To cook uncovered on a hot surface, usually a frying pan. The fat is poured off as it accumulates.
Parboil	To boil until partially cooked. The cooking is usually completed by another method.
Pare	To cut off the outside covering usually with a knife.
Peel	To remove or strip off the outside covering usually by the aid of heat or a mechanical device.
Plump	To soak dried fruits in hot water for a short length of time.
Portion Control	A specified measure or serving obtained by using correct size scoop, spoon, cut, etc., to ensure uniform servings and number of servings, as called for in a recipe.
Punch Down	To strike down risen dough with the fist to allow gas to escape and fresh oxygen to reach the yeast.

Puree	To finely strain fruits or vegetables.
Reconstitute	To make again, restore to original state.
Rehydrate	To soak, cook or use other procedures with dehydrated foods to restore water lost through drying.
Roast	The same as to BAKE. The term is applied to meats.
Roll	(1) To spread flat with a rolling pin, as rolling out pastry; (2) To roll up, as with a jelly roll; (3) a small piece of yeast dough baked in any of numerous ways.
Roux	A mixture of fat or oil, cooked slightly with flour.
Sanitize	To destroy microorganisms causing food-borne illness. This is most often done at a high temperature with steam, dry heat, or by boiling the liquid.
Sauté	To cook in a small amount of fat. See Fry.
Scald	(1) To heat a liquid just below the boiling point; (2) to dip poultry in moderately hot, not boiling water, to loosen feathers before picking.
Scallop	To bake food, usually cut in pieces or slices, with a sauce or other liquid.
Score	To cut narrow grooves or gashes; to grade a food product as a quality.
Sear	To brown the surface of meat by a short application of intense heat; used to develop flavor and improve appearance.
Shred	To tear or cut into small, long narrow strips. Similar to sliver (to cut or shred into small pieces).
Simmer	To cook in a liquid just below the boiling point at temperatures of 185 degrees F to 210 degrees F. Bubbles form slowly and break below the surface.
Sponge	A batter made with yeast or a high light cake leavened with air and steam.
Steam	To cook in steam with or without pressure.
Steep	To extract flavor and color by adding boiling water to a substance and permitting the mixture to stand. The mixture is always held below the boiling point.
Stew	To simmer or boil in a small quantity of liquid. When applied to meat, a simmering temperature is maintained.

Stir	To mix food materials with a circular motion to blend or to secure a uniform consistency.
Stock	The liquid in which meat, poultry, fish, or vegetables have been cooked.
Tenderize	To make meat tender by pounding, marinating or using a meat tenderizer.
Thicken	To blend flour, cornstarch, or other thickening agents with liquid, then simmer to produce a creamy, smooth sauce.
Toast	To brown by means of direct heat; applied to grain mixtures, marshmallows, and coconut.
Until Set	Until a liquid becomes form .often refers to a gelatin or custard mixture.
Whip	To beat rapidly to produce expansion due to incorporation of air; applied to cream, eggs, gelatin mixtures, etc.

MERCHANDISING HINTS

Make your areas attractive with garnishes, clean uniforms and decorations.

Ask for student reactions.

Cooperate with school staff on special promotions.

Be sure you are represented at civic group programs.

Attend PTA meetings.

Dress in school colors or themes.

Provide fast service.

Arrange food attractively on the plate.

Keep a positive attitude toward staff and students.

Smile!



Equipment Use and Care

GOAL

To train school food service employees to identify, safely operate, and care properly for certain hazardous “Quantity Food Production Equipment”.

OBJECTIVES

1. To identify the type and uses of food service equipment necessary for the correct production of food.
2. To identify potentially hazardous pieces of equipment and how to prevent accidents.

CONCEPT		CONTENT
1.	<p>Basic selected pieces of equipment are essential for the productivity of the food service program.</p> <p>VISUALS:</p> <p>Handouts of Equipment Fact Sheets.</p> <p>RESOURCES/NOTES:</p> <p><u>USDA Quantity Food Preparation for Child Nutrition Programs.</u> Washington, DC, Food and Nutrition Service, 1977.</p> <p>School and Institutional Lunchroom Management. Olive B. Watson.</p> <p>USDA Principles of Equipment and Layout Design for Child Nutrition Programs. Washington, DC, Food and Nutrition Services, 1977.</p>	<p>1. There are necessary pieces of equipment for the food service staff to learn how to identify and the general use of each.</p>
2.	<p>The appropriate operation of institutional equipment is dependent upon proper training of personnel employed in the food service program.</p>	
3.	<p>Some pieces of equipment can be potentially hazardous when in operation.</p>	<p>2. Cutter or Chopper – Use for dry bread and cracker crumbs, cooked meats and vegetables, such as cabbage and potatoes.</p>

		<p>Cutter or Mixer (includes vertical cutter) – Can be used for bakery products, meats, salad dressing and for cutting fresh vegetables and pureeing fruits in seconds.</p> <p>Garbage Disposal – Used to grind most food waste with running water to flush grounds through unit to sewer line.</p> <p>Knives – Boning, French, paring, bread slicer, etc.</p> <p>Mixer and Attachments – Used for combining or blending food materials – bench-type or floor-type.</p> <p>Slicer – An adjustable power knife with revolving blades.</p> <p>Steam-jacketed Kettle – Large cooking pot used for steaming, boiling or simmering large amounts of food.</p>
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FOOD CUTTER/CHOPPER

1. Hub Cover
2. Clutch Handle
3. Bowl Guard
4. Bowl
5. On/Off Switch



HOW TO OPERATE A FOOD CUTTER OR CHOPPER

WHAT TO DO:

1. Assembly
2. Fill Bowl
3. Strip machine and remove chipped food from bowl

HOW TO DO IT:

Turn off switch and unplug machine. Place bowl in position, rotate bowl counter clockwise to stop. Place knife on shaft and secure with hand knob. Place in closed locked position.

Fill bowl 1/3 to 1/2 full. Do not overfill. Plug in machine and turn on switch.

Turn switch to off. Do not lift cover until knives have stopped moving. Open cover, turn lock knob to right angle. Unscrew hand knob. Slide off knife assembly. Remove food from bowl.

SAFETY PRECAUTIONS

1. Never put hands in bowl when in use.
2. Wait until knives have stopped revolving before removing food and cleaning.
3. Do not overload the bowl; fill no more than 2/3 full.
4. Use large spoon rather than hand to guide food into cutters – move in direction opposite to bowl rotation.
5. Do not use for cutting meat with bones and gristle that damages knives and gears.
6. After cleaning make sure knives are replaced in the proper position. Do not use for:
 - Raw meat
 - Meat with bones

- Meat with gristle
- Soft bread
- Greens
- Cheese

HOW TO CLEAN A FOOD CUTTER/CHOPPER

WHAT TO DO:

HOW TO DO IT:

Remove Parts

Push switch to “off” position. DANGER: Wait until knives have stopped revolving. Release safety catch holding bowl guard in place. Lift guard and remove.

Clean Knives

Unscrew wing nut and remove blades from motor shaft. Clean cautiously and carefully with hot detergent solution using disk mop or sponge with handle. Rinse and Dry.

Clean bowl guard

Remove all food particles, paying particular attention to area around guard. Wash with hot detergent solution. Rinse and dry.

Clean bowl

If removable, remove and wash with other parts. If fixed, wipe out food particles. Clean with hot detergent solution. Rinse and dry.

Clean parts

Wash small parts in hot detergent solution. Rinse and dry.

Reassemble

Replace guard. Attach bowl to base. Reattach knife blades to shaft. Drop guard into position.

Clean under surface

If bowl is not removable, clean under surface. Wash table or pedestal with hot detergent solution. Rinse and dry.

PERIODIC CARE (to supplement daily)

Lubricate

Oil motor according to manufacturers instruction.

Sharpen Knives

Have knives sharpened, when needed by reliable service organization.

END OF SCHOOL YEAR CARE

Disconnect cutter

Disconnect cutter from wall socket of switch

box.

Clean interior and exterior

Clean interior and exterior thoroughly using same procedure as for daily cleaning. Wipe knives with cloth dampened with cooking oil or other rust preventative.

Storage

Store unassembled and wrap so parts will not rust.

VERTICAL CUTTER/MIXER

Vertical Cutter/Mixer – A vertical cutter/mixer, flat-bottomed food preparation vessel. It is used for cutting, mixing and blending when quick volume production is desired. An electric motor rotates a blade at high speed, which cuts, mixes or blends the product rapidly. It is used to chop and blend vegetables, meats, cheese, breadcrumbs, and to mix certain products.

Advantages of the Vertical Cutter/Mixer (VCM)

- It can reduce total preparation time.
- It is very flexible and can be used for a wide variety of food.
- It is very easy to clean.

HINTS

- When VCM is not in use, do not leave any attachments on the center motor shaft.
- Lay attachments in bowl separately.
- Use standard narrow knives if in doubt as to the proper accessory.
- Check the knife shaft prior to each use to be sure the locking nut is tight.
- Stop VCM frequently to check progress of product.
- Do not exceed 80% bowl capacity when using liquids.
- Do not exceed the recommended maximum capacities.
- Always put liquid into bowl first, and then dry ingredients. If recipe calls for shortening, add this last.
- Remove gristle and tendon content before processing meat.
- Reduce large or bulky items (cheese, celery stalks, large chunks of meat, etc.) to a fine cut product.
- Limit product size (must be free to drop into cutting blades)
- Run VCM briefly to break down the large or hard chunks, and then add balance of load for final cutting and mixing.
- For best results, cheese or meat should be chilled (tempered to 28 degrees F) before cutting.
- When using large, tempered chunks, remove mixing paddle during first 10 seconds of chopping time.



HOW TO OPERATE A VCM

WHAT TO DO:

1. Jogging Method – This method of operation should be used to control produce particle size. It is recommended for inexperienced VCM operations.

HOW TO DO IT:

- Place left hand on switch and right hand on mixing baffle handle.
- Turn mixing baffle one revolution clockwise.
- Turn mixing baffle one quarter of a revolution counter clockwise.
- Turn switch on (low speed, No 1 setting).

2. Continuous Method (This method is recommended for experienced VCM operators.
 - Repeat steps Nos. 3 through 6 until the product is out to desired consistency.
 - Place left hand on switch and right hand on mixing baffle handle.
 - Turn switch on (low speed, No. 1 setting).
 - Turn mixing baffle in clockwise direction.
 - Sharply reverse this direction one quarter of a turn after each revolution.
 - When desired consistency is achieved, turn switch off.
3. Unload
 - Be certain the machine has come to a complete stop before opening the bowl cover. Remove the shaft with the cutting knives before emptying bowl.
 - Non-cutting accessories, such as the standard stir/mix shaft, grater shaft, or hinged/wing knives need not be removed.
 - If necessary, scrape bowl cover before tipping the machine.
 - When removing the finished product from the bowl, you can lock the bowl in various positions by means of the bowl-positioning lever.
4. Clean
 - Use standard narrow knives. Use either mixing baffle or the homogenizing baffle.
 - Fill bowl 1/3 full of warm water (not hot water).
 - Add a small amount of detergent and close cover and inspection cover. Place towel over inspection cover.
 - Start in low speed, switch to high speed.
 - Turn baffle counter clockwise.
 - Turn switch off, wait until machine comes to a stop before opening cover.

SAFETY PRECAUTIONS

1. Never put hands in bowl when in use.
2. Wait until knives have stopped revolving before removing food and cleaning.
3. Do not overload the bowl; fill no more than 2/3 full.

4. Use large spoon rather than hand to guide food into cutters – move in direction opposite to bowl rotation.
5. Do not use for cutting meat with bones and gristle that damages knives and gears.
6. After cleaning make sure knives are replaced in the proper position. Do not use for:
 - Raw meat
 - Meat with bones
 - Meat with gristle
 - Soft bread
 - Greens
 - Cheese

PERIODIC CARE

- | | |
|-------------------|---|
| 1. Oil Motor | Oil the motor according to the manufacturer's instructions. |
| 2. Sharpen Knives | Have the knives sharpened by a service man. |

HELPFUL OPERATING TIPS

1. Use low speed for all general cutting and mixing.
2. Use high speed for emulsifying, pureeing, homogenizing or crumbing.
3. When cutting products of different hardness, cut hard products first and soft products last.
4. Stop often and check the progress of the product.

GARBAGE DISPOSAL

The garbage disposal is used to grind most food waste. Running water is used to flush the ground waste through the unit and into the main sewer line.



GENERAL DIRECTIONS FOR PROPER USE OF THE GARBAGE DISPOSAL

Before using the garbage disposal:

WHAT TO DO:

Check the unit

Check “flange”

Ensure motor is running

Do not overload

HOW TO DO IT:

- Check to be certain that there are no foreign objects (e.g. utensils, bones, etc.) inside of the unit.
- Be sure that the “flange” is in place. The flange is the rubber stopper that fits into the opening of the disposal.
- Do not feed food waste into the disposal unless the water and motor are running. NOTE: Never feed celery, bones or onion skins into the disposal.
- Do not overload the disposal with an excessive amount of food, water, or waste at one time. CAUTION: Never put hands into the unit while it is in operation.

TO OPERATE A GARBAGE DISPOSAL

WHAT TO DO:

Start Disposal

Feed Food

Run disposal

Stop Disposal

IF THE DISPOSAL STOPS DURING OPERATION:

Turn off

Check Unit

Remove Materials

Wait for motor to cool

Depress reset button

Contact Food Service Office

HOW TO DO IT:

Start the disposal by depressing the start button. This will begin the motor and the flow of water (some models may require the water be run manually). Always be sure that the water is running before feeding food waste into the unit. **** Refer to the operator's manual for specific instructions for your school's unit.**

Feed the food into the disposal in a steady continuous manner. The unit operates most efficiently with this method. Do not stop the motor until all the food waste has been run through the unit.

Run the disposal for 2-3 minutes after the last of the food waste has been fed into the unit. This assures that all of the water has passed through the unit. It also helps to maintain a clean and odor free unit as well as prevent clogging of drainpipes.

Stop the disposal by depressing the stop button.

Before checking for a cause, **turn off** the disposal.

Check to see if the unit has been jammed because it has been overloaded or a foreign object has accidentally been fed into the disposal (e.g. spoon, wrapper, metal twisty, etc.).

Remove the materials that might have caused the unit to stop (or jam).

Wait 3-5 minutes for the disposal motor to cool then depress the red reset button. This is an overload switch, which stops electric current to prevent the motor from being damaged.

Use a finger to depress the reset button. **NEVER** use an object to depress the button.

If the disposal does not resume normal operation after following the above procedures, contact the food service office.

KNIVES

USES of a BONING KNIFE



- Disjointed fowl
- Separating meat from bone
- Dicing raw meat
- Coring Lettuce

USES of a FRENCH KNIFE



- Slicing/cutting raw fruits
- Slicing/cutting raw vegetables
- Slicing/cutting warm meat
- Chopping
- Dicing
- Mincing

USES of a PARING KNIFE



- Paring fruits
- Paring vegetables
- Removing eyes from potatoes

USES of a BREAD KNIFE



- Slicing bread or cake with a light sawing motion

USES of a SLICER KNIFE



- Slicing tomatoes and lettuce
- Slicing wedges
- Slicing roast and hams
- Slicing cakes
- Slicing sandwiches

PIE KNIFE



- Removing pieces of pie from pan

CAUTION: It is much easier to keep knives sharp than to have them reconditioned, which is necessary if the blades become badly dulled or blunted.

STORAGE OF KNIVES

WHAT TO DO:

1. Care for Knives

HOW TO DO IT:

- If chrome plating is scratched, the exposed metal will rust or stain. Hollow ground blades are especially subject to damage from careless handling.
 - Be careful that blades do not strike against each other or other tools.
 - Heat can damage the blade of a good knife so do not subject your blades to direct heat.
 - Never use good knives for cutting paper, string, or for sharpening pencils.
-
2. Care for handles
- Never allow a knife with a wooden handle to soak in water.

CARE FOR METALS

WHAT TO DO:

1. Clean thoroughly

HOW TO DO IT:

Aluminum

- Wash thoroughly after each use with hot water and a mild soap, detergent or aluminum cleaner. A fine steel wool can be used. Dry thoroughly with a clean dry towel.

Chromium Plate

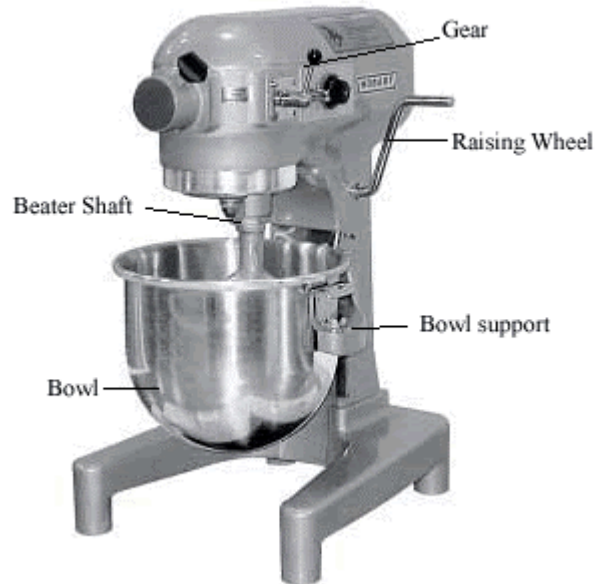
1. Use and clean carefully

- Use and clean chromium plated utensils carefully, so you will not scratch or wear off plating.

CAUTIONS

- Do not use soda, lye, ammonia, or washing powder containing strong alkalies. Generally speaking, cleaners that do not injure the hands will not harm aluminum.
- Never turn cold water into a heated aluminum pan, as this may cause warping. Use hot water in a heated pan
- Discoloration due to deposits having been made on the inside of utensils by water or food is harmless and will not affect the food. To clean discoloration, use a solution of vinegar and water (1/4 cup to 1/2 cup vinegar to 1 quart of water). Fill utensil with this solution and let simmer for 15 minutes, and then allow mixture to cool for 15 minutes. Clean pan while still warm, using steel wool. Repeat this process if necessary. Often discoloration is removed by cooking some acid fruit or vegetable in the utensil. It will disappear without affecting the taste, color, or quality of food. Strong alkaline and salt will cause pitting of aluminum.

FOOD MIXER



HOW TO OPERATE A FOOD MIXER

CAUTION: Instructions given below are general; read and follow the manufacturer's directions carefully.

WHAT TO DO:

1. Place bowl
2. Fill Bowl
3. Insert Beater
4. Raise bowl
5. Fill Bowl
6. Insert Beater

HOW TO DO IT:

Select appropriate size bowl. Place bowl on bowl support.

Place ingredients in bowl as recipe directs (1/2 to 2/3 capacity for best results).

Select and insert proper beater for ingredients to be mixed.

Raise bowl into position by means of wheel or lever.

For belt driven machine, switch to "on" position. For gear driven, be sure gear is in neutral; push start button and set gear to speed required by recipe. Beat or mix the required length of time.




For belt driven machine, switch to "off"



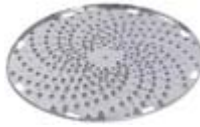


position. For gear driven machine shift to neutral gear and push “stop” button.


7. Remove Food

Lower bowl by means of wheel or lever.
Remove beater. Remove bowl.

USES FOR BEATERS AND WHIPS

Flat Beater – Use for general mixing, never for heavy dough’s.	<ul style="list-style-type: none"> Mixing main dish items, such as ham-bean load, fish cakes, and hamburger.
	<ul style="list-style-type: none"> Mashing vegetables such as potatoes and squash.
	<ul style="list-style-type: none"> Creaming mixtures such as butter and sugar, uncooked icings, honey, butter, and sandwich spreads.
	<ul style="list-style-type: none"> Mixing matters such as muffins, cakes, and steamed puddings.
	<ul style="list-style-type: none"> Blending mixtures such as pastry and biscuits.
Wire Whip – Never use for heavy mixtures. Do not mash potatoes; can be used for instant mashed potatoes.	<ul style="list-style-type: none"> Incorporating air into light mixtures.
	
Dough Hook	<ul style="list-style-type: none"> Use for mixing heavy dough requiring a folding and stretching action for best development.
	

Vegetable Slicer	<ul style="list-style-type: none"> Use with various plate attachments.
	
Adjustable Slicer Plate	<ul style="list-style-type: none"> Used for slicing potatoes, cabbage, and firm fruits.
	
Grater Plate	<ul style="list-style-type: none"> Used for firm vegetables, dry bread for crumbs.
	
Shredder Plate	<ul style="list-style-type: none"> Use for Cole slaw, vegetables for soups or salads, hard cheese.
	
Meat and Food Chopper	<ul style="list-style-type: none"> Use for raw or cooked meat, vegetables and dry fruits, dry breadcrumbs, and processed cheese.
	

Knife	<ul style="list-style-type: none"> Used for cutting and chopping foods.
	
Pusher	<ul style="list-style-type: none"> Used for pushing food into mixer.

SAFETY PRECAUTIONS

- Select proper bowl and proper beater or whip for the type of mixture.
- Be sure to fasten bowl and beater or whip securely before starting motor.
- **DO NOT PUT HAND OR SPOONS INTO BOWL WHILE THE MIXER IS IN OPERATION.**
- **STOP** the machine before scraping down sides of bowl during mixing process.
- Always use rubber scraper, flexible scraper, or long handled spoon to scrape down bowl and remove food from beater.
- Use missing bowls for mixing only. **NEVER** on range or in the oven.
- If mixer is used for long period, allow time for motor to cool. Most mixers operate at capacity load for one hour without overheating or damaging motor.
- Allow proper mixing time for products – over mixing is as damaging as under-mixing.
- It is wise to store the knife and chopper blades in a separate plastic bag after washing and drying thoroughly.
- Put a piece of bread through the chopper after grinding cheese.
- Use a pusher, never hands.

HOW TO CLEAN A FOOD MIXER

CAUTION: Instructions given below are general; read and follow the manufacturer's directions carefully. Have motor and mechanical parts inspected regularly as needed by reliable service organization.

WHAT TO DO:

Clean Machine

HOW TO DO IT:

Immediately after use, clean bowl support, beater shaft, shell, and base with hot detergent solution. Rinse and dry. Scrape and brush out groove on beater shaft if necessary.

Clean Parts

Wash bowl and beaters immediately after using.

WEEKLY CLEANING (to supplement daily)

Clean entire Mixer

Clean thoroughly following instructions for daily

cleaning.

PERIODIC CARE (to supplement daily)

Lubricate

Lubricate machine according to manufacturer's instructions.

END OF SCHOOL YEAR CARE

Disconnect mixer

Disconnect mixer from wall socket or switch box.

Clean entire mixer and attachments

Clean and dry thoroughly following instructions for daily cleaning.

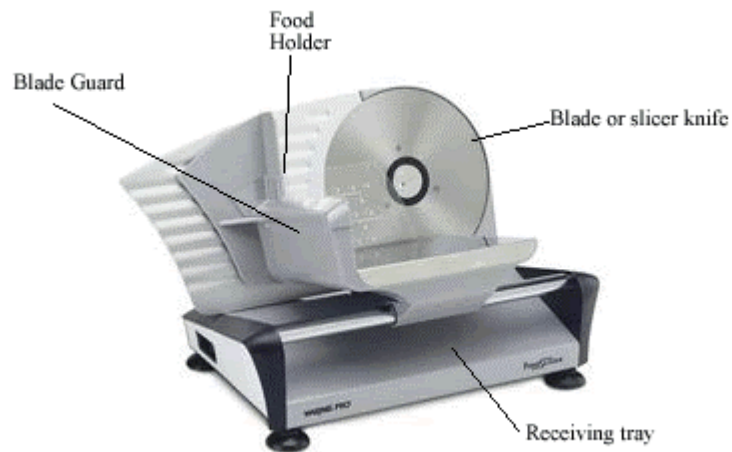
Storing Parts

Store in clean, dry place. Small attachment parts may be stored in plastic bags. Have bowls re-tinned, if necessary.

Servicing

Have reliable service organization inspect and lubricate mixer.

FOOD SLICER



HOW TO OPERATE A FOOD SLICER

CAUTION: Instructions given below are general; read and follow the manufacturer's directions carefully.

WHAT TO DO:

1. Put plug into socket
2. Place food in carriage
3. Adjust indicator
4. Start motor
5. Slice Food

HOW TO DO IT:

Plug in. NOTE: Be sure the cord is dry and free from grease to avoid short circuits. Be sure that hands are dry to prevent shock.

Place food in carriage and hold it firmly in place by means of food holder.

Adjust blade control indicator for desired thickness of slice.

Turn switch on.

Move carriage back and forth across the blade using the handle. NOTE: Develop a rhythmic motion. DO NOT bang carriage.

HOW TO CLEAN A FOOD MIXER

DRY CLEANING

WHAT TO DO:

Remove Parts

Clean blade

Clean and replace guard

Clean other parts

Clean frame and base

Replace parts

Cover Slicer

HOW TO DO IT:

Remove electric cord from socket. Set blade control indicator at zero. Remove parts following manufacturer's instructions.

Wipe gauge plate with hot detergent solution. Rinse and dry. NOTE: KEEP CLEAR OF BLADE EDGE. Wipe entire blade with heavy cloth, folded and dampened with hot detergent solution wrap around long handled hook if provided (Wipe from center toward edge of blade) rinse and dry with clean heavy cloth.

Wash blade guard in hot detergent solution. Rinse and dry. NOTE: Replace blade guard immediately to prevent injury.

Wash other parts in hot detergent solution. Rinse and dry.

Wash all surfaces with hot detergent solution. Clean under blade with damp cloth.

Replace parts following manufacturer's instructions.

Cover with plastic or clean towel.

WEEKLY CLEANING

Clean entire slicer

Clean thoroughly following instructions for daily cleaning. NOTE: be sure to clean area under slicer.

PERIODIC CARE

Sharpen blade

Sharpen blade as needed following manufacturer's instructions.

Lubricate

Lubricate slicer following manufacturer's instructions.

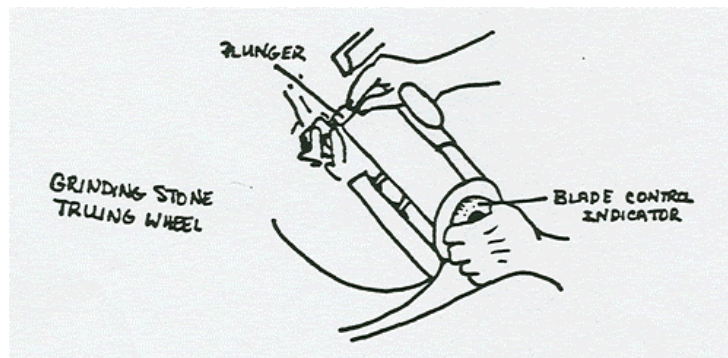
Remove gauge plate

Remove and clean gauge plate following manufacturer's instructions.

END OF SCHOOL YEAR

Disconnect Slicer	Disconnect slicer from wall socket or switch box.
Clean entire slicer	Clean and dry thoroughly following instructions for daily and weekly cleaning.
Servicing	Have reliable service organization sharpen blade and lubricate motor and parts.

GENERAL DIRECTIONS FOR PROPER USE OF THE SHARPENER ACCESSORY



WHAT TO DO:

1. Set Indicator
2. Wash surfaces
3. Clean knife edge
4. Remove carriage
5. Set indicator knob
6. Loosen/tighten thumb screw
7. Turn on

HOW TO DO IT:

- Set the blade control indicator at zero.
- Wash the knife surfaces and area around the knife.
- With the knife guards in place, wash all grease from exposed areas of the knife-edge.
- Remove carriage by loosening the thumbscrew.
- Set the blade control indicator knob at 50 on the dial.
- Loosen the thumbscrew on the sharpener until the sharpener assembly slips upward into the slot. Tighten the thumbscrew.
- Turn on the slicer.

- | | |
|--|---|
| 8. Turn the blade control indicator knob | Turn the blade control indicator knob slowly clock-wise until the grinding stone touches the knife-edge. Grind the blade until the grinding stone touches the knife-edge. Grind the blade until a burr edge forms on the front edge of the knife. |
| 9. Stop and inspect the slicer | Stop the slicer and inspect if for a burred edge on the blade. If there is a burr, start the slicer again. |
| 10. Engage the truing wheel | Depress the plunger to engage the truing wheel on the burred edge while grinding the knife edge on the beveled side for about three seconds. |
| 11. Release plunger | Release the plunger while turning the blade control indicator knob counter-clockwise away from the knife-edge at the same time. |
| 12. Remove the sharpener | Stop the slicer and remove the sharpener. Return the blade control indicator knob to zero. |
| 13. Store the knife sharpener | Store the knife sharpener in an oil free area. If the sharpening stone become greasy, it will not sharpen the blade. |
| 14. Clean the slicer blade | Clean the slicer blade with a dampened clean cloth to remove any grinding particles. |

CAUTIONS AND GUIDES IN OPERATING A FOOD SLICER

1. The operation of a slicer will vary according to the make and model. The manufacturer's instructions should be followed to obtain the best performance from the slicer and to assure a long life.
2. All electrical connections should conform to the National Electrical Code Requirements (an American standard) together with other State and local requirements.
3. When cleaning a slicer, do not let water come in contact with the motor or electrical wiring.
4. Never use the slicer when the blade guard is off.
5. Always keep hands away from blade when machine is in operation.
6. Keep plug out of socket when machine is not in use. Be certain guard is on slicer before putting plug in socket.
7. Always make certain the switch is off and the plug is pulled out of the socket before starting to clean.

8. When disconnecting slicer, be careful to pull the plug – DO NOT pull cord.
9. Never use a metal instrument to scrape off food particles from slicer knife, as a nicked blade will rear food.
10. Make certain hands are dry before operating the slicer.
11. Be sure the cord is dry and free from grease to avoid short circuits.
12. Do not use very hot water or steam in cleaning slicer as too much heat may reduce the lubricants in important parts.
13. Keep blades sharpened according to manufacturer's instructions.

STEAM-JACKETED KETTLE

Steam-jacketed kettles eliminate most range top cookery and reduce the number of pots and pans required. Steam-jacketed kettles are easy to clean and keep clean. They stand ready and invite use for convenient one step cooking.

Only steam has the capability to impart heat rapidly and in quantity without a large temperature difference between the source of heat and the food

In a steam-jacketed kettle, the steam is safely confined in the jacket and is separated from the food being cooked. It releases its heat through the inner jacket to the food. The resulting condensate (water) cannot mix with the food and dilute it.



There are two kinds of steam-jacketed kettles – non-tilting and tilting.

1. The non-tilting kettles are stationary and cannot be tilted to remove food or to clean. Food must be removed with a ladle or through a draw-off valve which is located at the base of the kettle.
2. The tilting kettles can be tilted so that food can be removed and the kettle can be cleaned.

Both non-tilting and tilting kettles are designed so that they are built on a pedestal base, they have legs, or they are mounted on the wall.

TIPS ON USE

1. The steam-jacketed kettle may be used for:
 - a. Meats, poultry, and beans
 - b. Soups, stews and barbecue
 - c. Vegetables and fruits
 - d. Hard cooked eggs
 - e. Cereal products – spaghetti, macaroni, dumplings, etc.
 - f. Sauces and gravies
 - g. Puddings and custards
2. To eliminate excess liquid in canned vegetables preparation, pour juice into steam-jacketed kettle, simmer until reduced to a small concentrated amount. Add vegetables to reduced liquid and heat gently to the boiling point

3. The cooking should be staggered to start just before serving and continue through the serving period.
4. For green vegetables, let the steam escape by cooking in an uncovered steam-jacketed kettle. This helps to retain the appealing color of green vegetables
5. Basket inserts are an available option for the smaller size tilting kettles. These baskets are especially useful for cooking vegetables because they can be quickly removed from the boiling water.

HOW TO OPERATE A STEAM-JACKETED KETTLE

WHAT TO DO:

1. Adjust kettle to upright level position
2. Check water level
3. Check safety valve
4. Turn on steam control valve

HOW TO DO IT:

For tilting skillets, use hand crank.

For electric and gas self-contained kettles, keep water at halfway level in gauge glass. For kettles requiring addition of water, fill jacket according to manufacturer's instructions.

Check valve as described in instructions.

For electric, or direct steam kettles, turn on steam valve or electric switch. For gas kettle equipped with pilot, turn on main burner valve. Adjust heat or steam to proper temperature and pressure-adjust thermostat.) Open valve completely for highest temperature, close valve partially for simmering).

5. Fill Kettle

Add food or water in which food is to be cooked. Food or water should not exceed $\frac{3}{4}$ of the capacity of the kettle. Use long handled paddle for stirring.

6. Cooking Food

Close steam control valve, electric switch or burner valve. Remove food from long handled dipper, or drain out through draw off faucet. For trunnion-type kettle, remove food by tilting kettle.

7. Soak

Immediately after use, fill kettle with warm water above cooking level and soak until washed. (Use cold water if egg or flour mixture has been cooked).

SAFETY PRECAUTIONS

14. Be careful when raising lid - avoid steam burns.
15. See that proper water level is maintained in water jacket.
16. If water jacket has gone dry, DO NOT add water without first allowing kettle to cool.
17. Use of distilled water eliminated lime build up.
18. Be sure that safety valve is in good working order; check it daily.
19. If steam pressure rises above safety level, turn off kettle and call Service Company.

HOW TO CLEAN A STEAM-JACKETED KETTLE

1. Long-handled gong brush, nylon or regular
2. Bottle or brush
3. Pot and pan detergent solution
4. Clean dry cloth

WHAT TO DO:

1. Pre-rinse interior
2. Drain
3. Clean interior, exterior, and frame
4. Clean drain valve
5. Rinse Kettle
6. Clean floor recess

HOW TO DO IT:

Make sure valve is off and kettle is cool. Scrub interior briskly with long handled brush.

Open valve at bottom of kettle, drain, close valve.

Remove strainer, fill kettle to cover highest food line. With stiff brush, scrub entire kettle, inside and outside, lid, hinges, etc. Use hot detergent solution.

Open drain valve, scrub valve with stiff bottle or urn brush as solution drains out; close drain.

Fill kettle about 1/3 full of warm water. Rinse well inside and outside; Use brush or clean mop. Drain and dry. Leave lid partially open.

Clean floor around kettle and the floor drain after each use. Mop dry so not one can slip and fall.

WEEKLY CLEANING

1. Clean interior and exterior
- Follow directions above. Thoroughly clean exterior and polish if desired.

END OF SCHOOL YEAR

WHAT TO DO:

1. Clean interior and exterior
2. Turn off power
3. Servicing

HOW TO DO IT:

Clean thoroughly, following above instructions.

For electric kettles, turn off at main switch box.
For gas kettles, turn off pilot light or turn off main gas inlet.

Have inspection made by reliable service company.



Efficient Use of Resources

GOAL

To show employees the resources available to them in the kitchen/cafeteria, how to make the best of those resources, and how to make themselves a resource to others.

OBJECTIVES

1. To identify a job description.
2. To enable employees to be able to use a work schedule and know what is expected of them.
3. To familiarize employees with work simplification procedures.
4. To ensure that employees know the difference between measuring by volume and measuring by weight.
5. To identify characteristics of a good food service employee.

CONCEPT		CONTENT
1.	<p>A job description is a written list of duties/tasks that an employee is expected to do.</p> <p>VISUALS:</p> <p>Sample job description - should be an actual one from the local district.</p> <p>RESOURCES/NOTES:</p> <p>Local school board personnel manual.</p>	<p>1. A job description will tell the employee what tasks the manager expects the employee to perform.</p>
2.	<p>A work schedule is an outline of work to be performed with time requirements and procedures to be followed.</p> <p>VISUALS:</p> <p>Sample Work Schedule.</p> <p>RESOURCES/NOTES:</p> <p>VanEgmond-Pannell, Dorothy, <u>School Foodservice</u>. 1985, The AVI Publishing Company, Inc., Westport, CT</p>	<p>2. A work schedule in any particular cafeteria may vary from one specific to each individual to a daily unit schedule based upon the day's menu or an organization schedule which gives general information for daily schedules and is updated by the menus for specific instructions. Once an employee is familiar with the particular job description for his/her position and what types of tasks are expected, the worker should find the work schedule and, based on the day's menu, know what an employee is supposed to do and when he/she is to do it.</p>
3.	<p>Work simplification is the process of eliminating nonessential work.</p>	<p>3. It is important for new food service employees to understand the organization of a job before</p>

	<p>RESOURCES/NOTES:</p> <p><u>Work Simplification in Food Service</u>. 1972 University Press, Ames, IA</p>	<p>starting work can eliminate many unnecessary steps. Some steps to take at the beginning of the day could be:</p> <ol style="list-style-type: none"> Check the work schedule and menu for the day and determine the tasks to be done. If cooking, find the right recipe first. Determine all foods needed for preparation. Using a cart, proceed to the appropriate storage area, pick up all food needed for preparation, and return to the preparation area. Check preparation area to see that all tools, utensils and equipment needed are available and in place. Start preparation. This procedure eliminates many trips around the kitchen, helps eliminate interruptions during preparation, and will help produce a better product.
4.	<p>Employees should know the difference in measuring by weights or volumes.</p> <p>VISUALS:</p> <p>Equivalencies Handout</p> <p>Desirable Characteristics of a Food Service Employee Handout</p>	<p>4. There are two ways to measure food:</p> <ol style="list-style-type: none"> By pounds and ounces – measuring by weight. By teaspoon, tablespoon, cup, pint, quart, gallon – measuring by volume. <p>When measuring by weight, employees must know how the scale in their kitchen works. Pounds and ounces are the same regardless of the food to be measured.</p> <p>When measuring by volume, an employee must first know the difference between liquid and dry measuring tools.</p> <p>When measuring by volume, an employee must keep various equivalencies in mind.</p> <p>Discuss the necessity of knowing equivalencies when dealing with quantity recipes. Remember it is always easier, quicker and more accurate to use the largest volume measure available.</p>
5.	<p>Employees in school food service are the most important resource in the kitchen. When they are all working together well and</p>	<p>5. A good food service employee has the following characteristics:</p> <ol style="list-style-type: none"> Friendliness – It is easier to work with a

	<p>cooperating, a kitchen will produce a good quality meal in the most efficient way.</p>	<p>friendly co-worker than a grumpy, nasty one.</p> <ul style="list-style-type: none"> b. Self-confidence – Know that you were hired because the thought you could do the job. Have the confidence to do it. No one respects a person who acts like a doormat. c. Humor – Take your job seriously – not yourself. Remember everyone makes mistakes. Laugh at yourself, ask for help and correct your mistakes. It is better to have people laugh with you than at you. d. Tolerance – Remember not everyone will do things the way you would, but that doesn't mean that it is the wrong way. Nobody likes someone who knows it all – all the time. e. Assertiveness – If you see something that needs to be done and you know how to do it – do it! Don't hang back and wait to be asked. <p>School Food Service is a business and new employees must know that the school board expects the school food service program in their district to carry its own weight financially. The money does not come from the board, but from the program.</p>
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DAILY UNIT WORK SCHEDULE

Menu: Lasagna Casserole
Tossed Salad
Chilled Peach Halves
Buttered French Bread
Milk

TIME	MANAGER (7-HR)	6-HR ASSISTANT	5-HR ASSISTANT	4-HR ASSISTANT
7:30 – 8:00	Make coffee or tea for teachers			
8:00 – 8:30	Help with lasagna sauce	Prepare lasagna		
8:30 – 9:00	Lunch count - tickets		Dip up fruit and refrigerate	
9:00 – 9:30				
9:30 – 10:00	Teacher's salads		Wash vegetables for salad	
10:00 – 10:30	Cut bread and butter	Prepare bread crumbs for fried chicken tomorrow		Cut up vegetables for salads
10:30 – 11:00	Eat Lunch	Eat Lunch	Put out desserts, then eat lunch	Set up line – napkins, straws, dishes, etc.
11:00 – 11:30	Put food on steam table	Put food on steam table	Wash pots and pans	Mix salad for first lunch
11:30 – 12:00	Cashier	Serving Set up for next line	Serving Help in Dishroom	Back-up line Help in Dishroom
12:00 – 12:30	Serving	Serving Set up for next line	Cashier Help in Dishroom	Back-up line Help in Dishroom
12:30 – 1:00	Serving	Serving Put away food	Cashier 10-min break	Backup line Help in Dishroom
1:00 – 1:30	Count money – 10 – min break Help to clean tables	10-min break Clean tables	Clean steam table	Eat lunch
1:30 – 2:00	Prepare reports	Clean-up		Clean Dishroom
2:00 – 2:30	Place orders			Help with kitchen clean-up
2:30 – 3:00	Take topping out of freezer and put in refrigerator for tomorrow			

Source: Dorothy VanEgmond-pannell, School Food Service

COMMON EQUIVALENCIES

Use the largest volume measure appropriate for accuracy.

Volume Measures

3 teaspoons = 1 Tablespoon

4 Tablespoons = $\frac{1}{4}$ cup

16 Tablespoons = 1 cup

2 cups = 1 pint

4 cups = 1 quart

4 quarts = 1 gallon

Weights

1 pound = 16 ounces

1 pound brown sugar (packed) = 2 cups

1 pound shortening = $2\frac{1}{4}$ cups

1 pound AP flour = 4 cups

DESIRABLE CHARACTERISTICS OF A FOOD SERVICE EMPLOYEE

1. Report for work promptly – leave only when time is up.
2. Give notice promptly when unable to report for work.
3. Follow good personal appearance and cleanliness practices.
4. Work quietly and efficiently (make good use of time).
5. Keep work surfaces clean and neat.
6. Return clean equipment to its proper place.
7. Cooperate with manager, principal, teachers, students, food director and co-workers.
8. Practice safety precautions at all times.
9. Serve in any capacity and willingly accept responsibilities.
10. Help prevent waste of food and supplies.
11. Develop and maintain an attitude of helpfulness and cheerfulness toward students.
12. Test new recipes before serving dates.
13. Know how to do all jobs in the kitchen.
14. Do your part of the workload.
15. Prepare the day before for work next day, if possible.
16. Use free time for cleaning.
17. Learn to serve food attractively.
18. Place food neatly on the plate.
19. Make constructive suggestions, but abide by decisions after they are made.
20. Serve students the best food possible. Food is to be prepared as needed to serve each group of students.
21. Attend professional meetings and in-service programs related to food service.



Nutrition Education

GOAL

School food service personnel will have a working knowledge of nutrition as it specifically relates to the Child Nutrition Programs.

OBJECTIVES

1. Understand that the Child Nutrition meal patterns are based on federal guidelines.
2. To teach employees food preparation techniques which will assure nutrient retention.
3. To help food service employees gain an understanding of the Dietary Guidelines for Americans as they specifically relate to controlling sodium, sugar and fat, and increasing fiber in school meals.
4. To be able to assist students make more healthful food choices.
5. To work cooperatively with classroom teachers in promoting good nutrition practices.

CONCEPT		CONTENT
1.	<p>Child Nutrition meal patterns categorize foods by similar origin and nutrients provided. They describe a specific number of servings and amount of serving for each group based on age.</p> <p>VISUALS:</p> <p>Most current CN Meal Patterns</p> <p>RESOURCES/NOTES:</p> <p>“How to Eat for Good Health”, National Dairy Council.</p>	<p>1. The Child Nutrition meal pattern provides approximately 1/3 of the daily nutrient needs for both children and teenagers.</p>
2.	<p>Nutrient loss in foods results from exposure to air, heat, light and water. Certain food handling and preparation techniques will assure optimum nutrient retention.</p> <p>VISUALS:</p> <p>Nutrient Loss Handout</p> <p>RESOURCES/NOTES:</p> <p>Cooking Vegetables, Series II video</p>	<p>2. Food handling and preparation techniques which protect nutrients include:</p> <ol style="list-style-type: none">a. Storage – Fresh produce quality and nutrient level can be protected by washing fruits and vegetables and storing them covered under refrigeration.b. Cooking – Raw or frozen vegetables should be prepared in a minimum amount of liquid. Cooking time should be determined by the equipment used. Canned vegetables are cooked already and only need to be heated before serving.c. Serving – Batch-cooking techniques should be utilized so that foods stay on the serving

	<p>Oregon Efficient Food Production videos.</p> <p>Menu Planning Guide for School Food Service, USDA, FNS, Program Aid No. 1260, December, 1983</p>	<p>line for a limited time before being served.</p>
3.	<p>The Dietary Guidelines for Americans serve as a nutrition guide for the general population.</p> <p>VISUALS:</p> <p>Acquire most recent copy of the Dietary Guidelines for Americans.</p> <p>USDA Recipe Card File.</p>	<p>3. Implementing the Dietary Guidelines in school meals involves taking a good look at the measures addressed below.</p>
4.	<p>Child Nutrition Programs should control amounts of sodium, sugar, and fat and increase fiber in school meals.</p> <p>VISUALS:</p> <p>Sodium, Sugar, Fat and Fiber in the Diet Handout</p>	<p>4. Sodium</p> <ul style="list-style-type: none"> a. Remove salt shakers from the tables. b. Do not add salt to canned or frozen vegetables. c. Adhere to amounts of salt recommended in new USDA recipe card files in preparing meats and breads. d. Limit serving frequency for cured meats and luncheon meats. <p>Sugar</p> <ul style="list-style-type: none"> a. Use the USDA recipe card file for baked or desserts. b. In other recipes, decrease sugar amounts by 20%. c. Serve juice-pack or light syrup canned fruit. d. Limit serving frequency for high sugar breakfast cereals or dessert products. <p>Fat</p> <ul style="list-style-type: none"> a. Limit use of deep-fat fryers and grills. b. Use moderate amounts of butter to season cooked vegetables. c. Oven-fry meats. Remove from baking pans immediately to prevent re-absorption of fat from cooking process.

		<ul style="list-style-type: none"> d. Substitute vegetable shortening for part of butter in baked products to decrease use of saturated fats. e. Limit serving frequency for cured meats and luncheon meats. <p>Fiber</p> <ul style="list-style-type: none"> a. Increase use of fresh fruits and vegetables. b. Incorporate whole-grains (wheat, oats, cornmeal) in baked products and meat mixtures. c. Offer whole-grain sandwich breads and buns. d. Do not peel fruits and vegetables.
5.	<p>The revised USDA recipe card file has been standardized to follow these guidelines.</p> <p>VISUALS:</p> <p>Menu Evaluation Handout</p> <p>“Lasagna with Ground Beef”, Main Dishes in Recipe manual.</p> <p>RESOURCES/NOTES:</p> <p>Discuss ingredients and food preparation.</p> <p>Identify uniformity of instruction techniques that indicate adherence to Dietary guidelines for Americans throughout.</p>	
6.	<p>School meals should provide a wide variety of foods in moderate amounts.</p>	
7.	<p>Child Nutrition Programs are based on accepted principles of nutrition. These principles provide guidance in planning, preparing, and serving of school meals.</p> <p>RESOURCES/NOTES:</p>	<p>7. Student ability to make healthful food choices is reinforced by food service operations that have maintenance of high nutritional standards as a primary function of the operation.</p> <p>School food service personnel should be aware that school meals are planned to satisfy nutritional requirements of school-age children.</p>

	<p><u>Nutrition in Action</u> series, Penn State University.</p>	<p>They should also be aware of specific food preparation techniques that were utilized to protect the nutritional quality of the meal.</p> <p>School food service personnel should be able to respond to student inquiries with reliable, accurate nutrition information related to school meals served in a particular location.</p>
8.	<p>Child Nutrition Programs must be perceived as a part of the total educational effort.</p> <p>RESOURCES/NOTES:</p> <p>Discuss the challenges of integrating the Child Nutrition Program into the total school curriculum.</p> <p><u>Framework for Nutrition, K-12 Nutrition Education Curriculum.</u></p>	<p>School food service operations support classroom instruction by providing meals that reflect good nutrition practices presented in the school curriculum.</p> <p>Teacher support of the Child Nutrition Program can be maintained by an operation that displays a consistently high level of nutrition knowledge and practice.</p>

NUTRIENT LOSS

AIR	STORAGE
HEAT	COOKING
LIGHT	SERVING
WATER	

SALT, SODIUM, FAT AND FIBER IN THE DIET

Sodium

- a. Remove saltshakers from the tables.
- b. Do not add salt to canned or frozen vegetables.
- c. Adhere to amounts of salt recommended in new USDA recipe card files in preparing meats and breads.
- d. Limit serving frequency for cured meats and luncheon meats.

Sugar

- a. Use the USDA recipe card file for baked or desserts.
- b. In other recipes, decrease sugar amounts by 20%.
- c. Serve juice-pack or light syrup canned fruit.
- d. Limit serving frequency for high sugar breakfast cereals or dessert products.

Fat

- a. Limit use of deep-fat fryers and grills.
- b. Use moderate amounts of butter to season cooked vegetables.
- c. Oven-fry meats. Remove from baking pans immediately to prevent re-absorption of fat from cooking process.
- d. Substitute vegetable shortening for part of butter in baked products to decrease use of saturated fats.
- e. Limit serving frequency for cured meats and luncheon meats.

Fiber

- a. Increase use of fresh fruits and vegetables.
- b. Incorporate whole-grains (wheat, oats, cornmeal) in baked products and meat mixtures.
- c. Offer whole-grain sandwich breads and buns.
- d. Do not peel fruits and vegetables.

MENU EVALUATION

Find the fat, sodium, sugar and fiber.

Hamburger/Bun

French Fries

Cole Slaw

Brownie

Chocolate Milk